

COMMONLY ASKED QUESTIONS

Why do you flush hydrants?

Hydrant flushing is done in the late spring and "spot" flushing is done throughout the year. This is done to help ensure water quality, to clear the mains of tuberculation (corrosion buildup), and to make sure every hydrant works correctly when they are needed! Brown water may result. Keep the faucet running until the brown water stops.



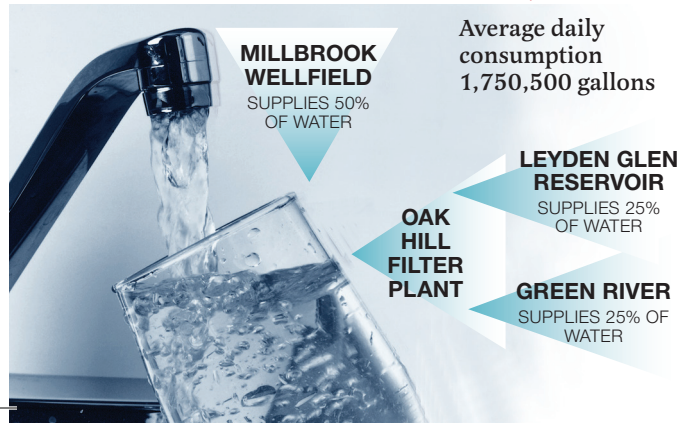
What's new in the system?

Highlights of last year's work completed by the DPW water distribution division ...



They repaired 8 main breaks, 10 water service repairs, renewed or retired 13 water services, repaired or replaced 6 hydrants that were hit by motor vehicles, and replaced 1025 feet of water main on Leyden Road. They also performed routine maintenance, meter repairs and replacements, caring for right of ways, plowing snow, and a host of other duties!

Greenfield Water Supply



Here is how you use water...

On average, each Greenfield resident uses 100 gallons of water every day. You can reduce your water use by as much as 30% if you are efficient!



- 27% Toilet flushing
- 21% Laundry
- 19% Shower & Bath
- 16% Faucets
- 14% Leaks
- 2% Other
- 1% Dishwashing

The Oak Hill Filter Plant is our primary plant that treats surface water fed from the Leyden Glenn Reservoir and the Green River. It is a slow sand filter plant built in 1935 with a 3.0 MGD capacity. Components of the plant consist of a coagulation basin, two slow sand filters, a clearwell/contact chamber and a disinfection building.



Find us on the web!

Find answers to many of your questions at:

- Town website: www.townofgreenfield.org
- Facebook: search for "town of greenfield water facilities," or the Department of Public Works at "town of greenfield DPW"

Who you gonna call?

Water quality questions:

Mark Holley, Water Facilities Superintendent
413-772-1539 or markh@greenfield-ma.gov

Leaks, low pressure, meter problems, or billing information:

Department of Public Works
413-772-1528 ext 100 or 106

Hazardous Waste Disposal:

413-772-1539, Paul Zilinski
or paulz@greenfield-ma.gov



Thank you for conserving water!

WATER QUALITY REPORT 2013

GREENFIELD, MASSACHUSETTS

MAYOR WILLIAM MARTIN



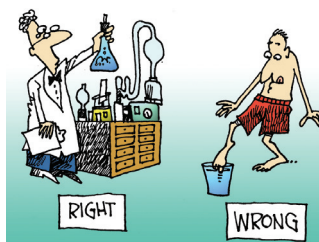
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PUBLIC WATER SUPPLY # 1114000

Did you know?

Over 3,000 individual tests are performed on Greenfield's drinking water every year.

Periodic tests include analysis of the source waters for a wide variety of substances such as pesticides, inorganic compounds and radioactive substances. Daily, the water leaving the treatment plant is tested for bacteria, pH, turbidity and chlorine residual.

Monthly, over 30 bacteriological tests are performed on water from all sections of town to insure the water maintains high quality as it travels through miles of distribution lines.



Manganese is a naturally occurring mineral found in rocks, soil and groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. The United States Environmental Protection Agency (EPA) and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 50 µg/L (micrograms per liter), or 50 parts per billion. In addition, MassDEP's Office of Research and Standards (ORS) has set a drinking water guideline for manganese (ORSG), which closely follows the EPA public health advisory for manganese.

Drinking water may naturally have manganese and, when concentrations are greater than 50 µg/L, the water may be discolored and taste bad. Over a lifetime, the EPA recommends that people drink water with manganese levels less than 300 µg/L and over the short term, EPA recommends that people limit their consumption of water with levels over 1000 µg/L, primarily due to concerns about possible neurological effects. Children up to 1 year of age should not be given water with manganese concentrations over 300 µg/L, nor should formula for infants be made with that water for longer than 10 days. The ORSG differs from the EPA's health advisory because it expands the age group to which a lower manganese concentration applies from children less than 6 months of age to children up to 1 year of age to address concerns about children's susceptibility to manganese toxicity.

SUBSTANCES DETECTED Below are substances that were detected in the Town's drinking water during the years listed next to the parameter. None of these substances were detected above the allowable limit.

CHEMICAL PARAMETERS

Substance/year	Units	Highest Level Allowed (EPA's MCL)*	Highest Level Detected	Range of Detected Levels	Ideal Goals (EPA's MCLG)*	Major Sources in Drinking Water
Nitrate '13	ppm	10.0	0.42	0.065 – 0.42	10.0	Runoff from fertilizer use; Erosion of natural deposits.
Chlorine '13	ppm	MRDL = 4	2.62	0.24 – 2.62	MRDLG = 4	Water treatment chemical used to control microbes
Total Trihalomethanes '13	ppb	80.0	19.13 RAA	9.5 – 27.0	0	RAA = Running Annual Average Disinfection by-products
Haloacetic Acids '13	ppb	60.0	12.43 RAA	5.7 – 16.0	N/A	RAA = Running Annual Average Disinfection by-products
Turbidity* '13	NTU	Treat tech* = 1	0.44	.03 – 0.44	none	Soil runoff
Lead '11	ppb	Action level* = 15	2.9 90th percentile	0.5 – 12.0 no exceedance	0	Household plumbing and service connections
Copper '11	ppm	Action level* = 1.3	0.99 90th percentile	0.046 – 1.40 1 site > 1.30	1.3	Household plumbing and service connections
Sodium '13	ppm	20.0	4.0	3.5 – 4.0	N/A	Runoff from storm water
Sulfate '12	ppm	N/A	12.0	6.0 – 12.0	N/A	Natural sources
Manganese '13	mg/L	0.3 mg/L	.0039 mg/L	N/A	N/A	Natural sources

DEFINITIONS:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there are no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm: One part per million (this would be one penny in 10,000)

ppb: One part per billion (one penny in \$10,000,000)

***Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

***Action Level:** The concentration of a contaminant that triggers treatment or other requirement that a water system must follow. Action levels are reported at the 90th percentile for homes at greatest risk.

***Turbidity:** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Are there any precautions some of our customers should consider?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



The Town is mandated by EPA to include the following generic language about the health effects of certain contaminants and drinking water sources:

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems;

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Regarding lead... If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Greenfield DPW is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. If you would like your water tested for lead at no charge please call the DPW at 413-772-1539. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>